

CLAIMS:

1. An apparatus for reading out information from an information carrier, the information including at least a first signal of at least partly encrypted content, comprising:
means for detecting a second signal logically embedded in the first signal,
means for detecting a physical mark used for storing at least part of the information on the
5 information carrier, and
means for refusing play back of the information read from the information carrier if a second
signal but no physical mark has been detected.

10 2. An apparatus according to claim 1, wherein the apparatus is a CD- or a DVD-
player.

3. An apparatus according to claim 1, wherein the physical mark is a wobble.

15 4. An apparatus according to claim 1, wherein the second signal is a single bit
trigger.

5. An apparatus according to claim 1, wherein the second signal is embedded in
the first signal by encoding it in a predetermined pattern of encrypted and unencrypted packs
of the first signal.

20 6. An apparatus according to claim 5, wherein the pattern is a pseudo-random
noise pattern.

7. An apparatus according to claim 6, wherein the pseudo-random noise pattern
25 is constructed by a linear feedback shift register.

8. An apparatus according to claim 7, wherein the linear feedback shift register is
over Galois Field $GF(s)$, and its output is biased by interpreting emitted symbols '0'...'s-n-1'
as 'unencrypted' and 's-n'...'s-1' as 'encrypted'.

9. An apparatus according to claim 1, wherein the second signal is embedded in the first signal by selecting a key for at least partly encrypting the information from one of at least two groups of keys.

5 10. An apparatus according to claim 9, wherein a key detection algorithm is used to select the key and to decode from which group of keys said key has been selected.

11. Apparatus of claim 10, wherein the decoding algorithm consists of examining
10 the outcome of projecting an n-bit key onto a set of fixed n-bit numbers.

12. Apparatus of claim 11, wherein said examining process takes the form of going down a binary tree, where said going left is caused by projection-value 0 and right by projection value non-zero.

15 13. A method of reading out information from an information carrier, the information including at least a first signal of at least partly encrypted content, comprising the steps of :
detecting a second signal logically embedded in the first signal,
20 detecting a physical mark used for storing at least part of the information on the information carrier, and
refusing play back of the information read from the information carrier if a second signal but no physical mark has been detected.

25 14. An apparatus for storing information on an information carrier, the information including at least a first signal of at least partly encrypted content, comprising: means for using a physical mark for storing at least part of the information on the information carrier, and
means for logically embedding a second signal in the first signal indicating that a physical
30 mark is used for storing at least part of the information on the information carrier, which second signal may be used for refusing play back of the information read from the information carrier if a second signal but no physical mark has been detected.

15. An apparatus according to claim 14, wherein the apparatus is a CD- or a DVD-recorder.

16. A method of storing information on an information carrier, the information including at least a first signal of at least partly encrypted content, comprising the steps of: using a physical mark for storing at least part of the information on the information carrier, and logically embedding a second signal in the first signal indicating that a physical mark is used for storing at least part of the information on the information carrier, which second signal may be used for refusing play back of the information read from the information carrier if a second signal but no physical mark has been detected.

17. An information carrier for storing information including at least a first signal of at least partly encrypted content, comprising: a physical mark for storing at least part of the information on the information carrier, and a second signal logically embedded in the first signal indicating that a physical mark is used for storing at least part of the information on the information carrier, which second signal may be used for refusing play back of the information read from the information carrier if a second signal but no physical mark has been detected.

18. An information carrier according to claim 17, wherein the information carrier is a CD- or a DVD-disc.

19. A method of exchanging copy protection information for protecting information stored on an information carrier including at least a first signal of at least partly encrypted content, wherein: a physical mark is used for storing at least part of the information on the information carrier, the copy protection information includes a second signal logically embedded in the first signal indicating that a physical mark is used for storing at least part of the information on the information carrier, which copy protection information may be used for refusing play back of the information read from the information carrier if a second signal but no physical mark has been detected.

20. A copy protection system for exchanging copy protection information for

protecting information stored on an information carrier including at least a first signal of at least partly encrypted content, comprising:

an apparatus for storing information on an information carrier as claimed in claim 14 and an apparatus for reading out information from an information carrier as claimed in claim 1,

- 5 wherein the copy protection information including a second signal logically embedded in the first signal indicating that a physical mark is used for storing at least part of the information on the information carrier is exchanged between both apparatuses, which copy protection information may be used for refusing play back of the information read from the information carrier if a second signal but no physical mark has been detected.

$\left\{ \begin{array}{l} \text{1.1} \\ \text{1.2} \\ \text{1.3} \\ \text{1.4} \\ \text{1.5} \\ \text{1.6} \\ \text{1.7} \\ \text{1.8} \\ \text{1.9} \\ \text{1.10} \\ \text{1.11} \\ \text{1.12} \\ \text{1.13} \\ \text{1.14} \\ \text{1.15} \\ \text{1.16} \\ \text{1.17} \\ \text{1.18} \\ \text{1.19} \\ \text{1.20} \\ \text{1.21} \\ \text{1.22} \\ \text{1.23} \\ \text{1.24} \\ \text{1.25} \\ \text{1.26} \\ \text{1.27} \\ \text{1.28} \\ \text{1.29} \\ \text{1.30} \\ \text{1.31} \\ \text{1.32} \\ \text{1.33} \\ \text{1.34} \\ \text{1.35} \\ \text{1.36} \\ \text{1.37} \\ \text{1.38} \\ \text{1.39} \\ \text{1.40} \\ \text{1.41} \\ \text{1.42} \\ \text{1.43} \\ \text{1.44} \\ \text{1.45} \\ \text{1.46} \\ \text{1.47} \\ \text{1.48} \\ \text{1.49} \\ \text{1.50} \\ \text{1.51} \\ \text{1.52} \\ \text{1.53} \\ \text{1.54} \\ \text{1.55} \\ \text{1.56} \\ \text{1.57} \\ \text{1.58} \\ \text{1.59} \\ \text{1.60} \\ \text{1.61} \\ \text{1.62} \\ \text{1.63} \\ \text{1.64} \\ \text{1.65} \\ \text{1.66} \\ \text{1.67} \\ \text{1.68} \\ \text{1.69} \\ \text{1.70} \\ \text{1.71} \\ \text{1.72} \\ \text{1.73} \\ \text{1.74} \\ \text{1.75} \\ \text{1.76} \\ \text{1.77} \\ \text{1.78} \\ \text{1.79} \\ \text{1.80} \\ \text{1.81} \\ \text{1.82} \\ \text{1.83} \\ \text{1.84} \\ \text{1.85} \\ \text{1.86} \\ \text{1.87} \\ \text{1.88} \\ \text{1.89} \\ \text{1.90} \\ \text{1.91} \\ \text{1.92} \\ \text{1.93} \\ \text{1.94} \\ \text{1.95} \\ \text{1.96} \\ \text{1.97} \\ \text{1.98} \\ \text{1.99} \\ \text{1.100} \end{array} \right\}$